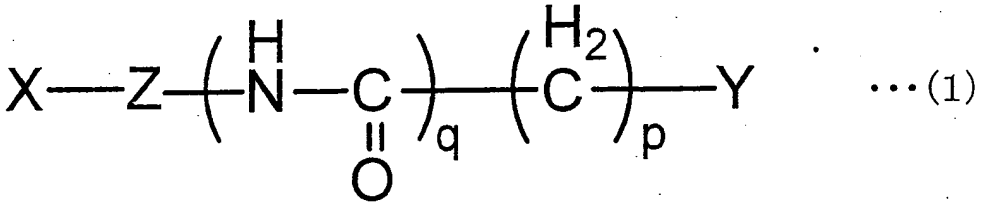
CLAIMS

1. A ligand conjugate comprising a linker compound and a sugar,

the linker compound having a structure represented by General Formula (1):



...(1)

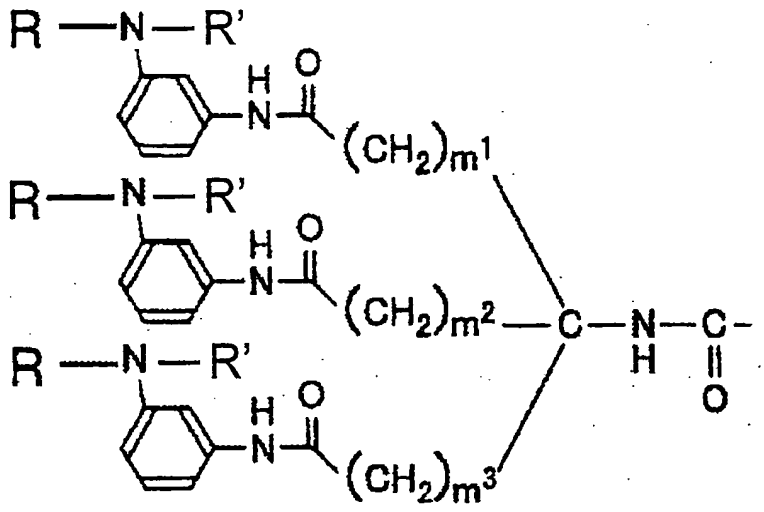
where p and q are independently integers of not less than 0 but not more than 6, in which X is a structure comprising one, two, or three hydrocarbon derivative chains which have an aromatic amino group at an end and may have a carbon-nitrogen bond in a main chain, Y is a sulfur atom or a hydrocarbon structure containing a sulfur atom, and Z is a straight-chain structure comprising a carbon-carbon bond or carbon-oxygen bond,

the sugar having a reducing end and being bonded to the linker compound through the aromatic amino group.

2. The ligand conjugate as set forth in Claim 1, wherein Y is a hydrocarbon structure having a S-S bond or a SH group.

3. The ligand conjugate as set forth in Claim 1 or 2, wherein:

X has a structure represented by General Formula (2):



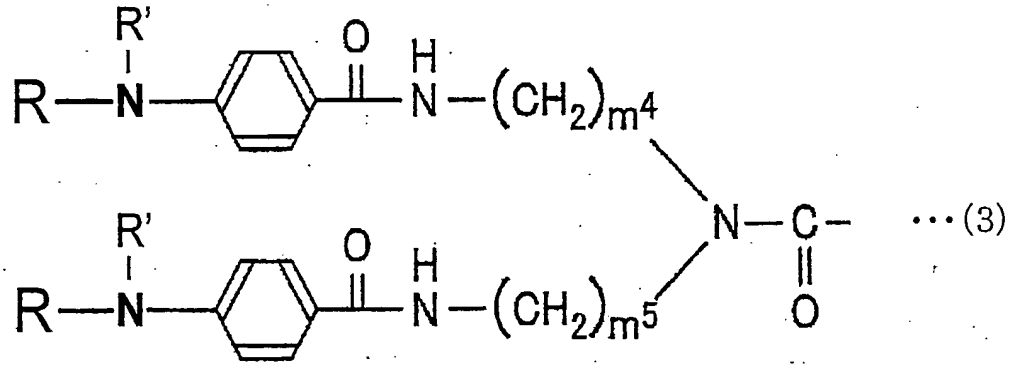
... (2)

where m^1, m^2, and m^3 are independently integers of not less than 0 but not more than 6, and R' is a hydrogen (H) or R,

R being a compound derived from a sugar chain.

4. The ligand conjugate as set forth in Claim 1 or 2, wherein:

X has a structure represented by General Formula (3):



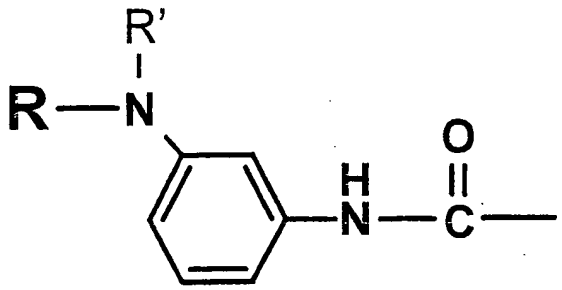
... (3)

where m^4 and m^5 are independently integers of not less than 0 but not more than 6, R' is a hydrogen (H) or R,

R being a derivative.

5. The ligand conjugate as set forth in 1 or 2, wherein:

X has a structure represented by General Formula (4):



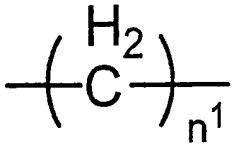
...(4)

where R' is a hydrogen (H), or R,

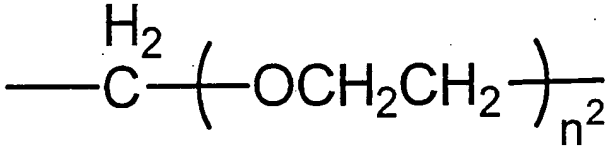
R being a compound derived from a sugar chain.

6. The ligand conjugate as set forth in Claim 1 or 2, wherein:

Z has a structure of Formula (5) or (6):



...(5)



...(6)

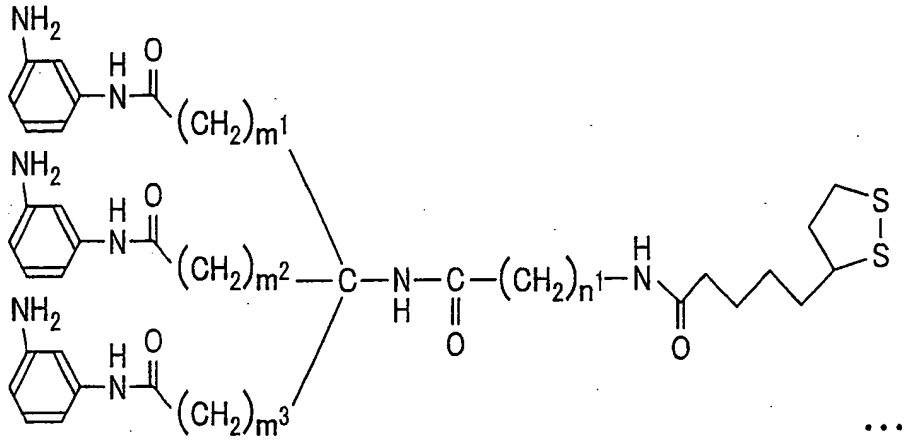
where n^1 and n^2 are independently integers of not less than 1 but not more than 6.

7. A method for producing a ligand conjugate, comprising:

performing reductive amination using a linker compound and a sugar that has a reducing end,

the linker compound being any one of:

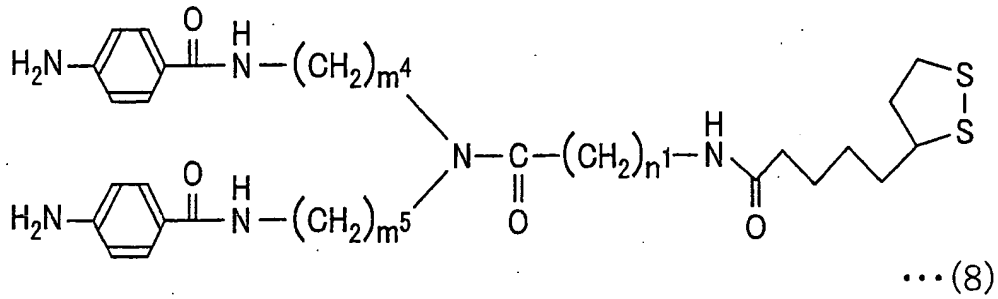
a linker compound having a structure represented by General Formula (7):



...(7)

where m^1, m^2, and m^3 are independently integers of not less than 0 but not more than 6, and n^1 is an integer not less than 1 but not more than 6;

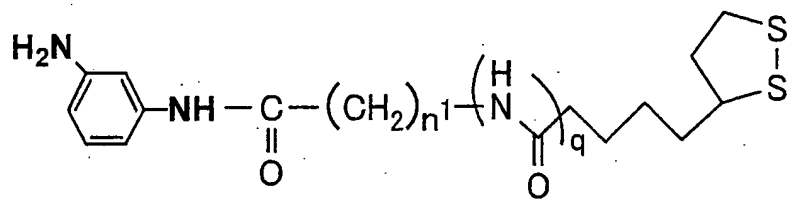
a linker compound having a structure represented by General Formula (8):



...(8)

where m^4 and m^5 are independently integers of not less than 0 but not more than 6, and n^1 is an integer of not less than 1 but not more than 6;

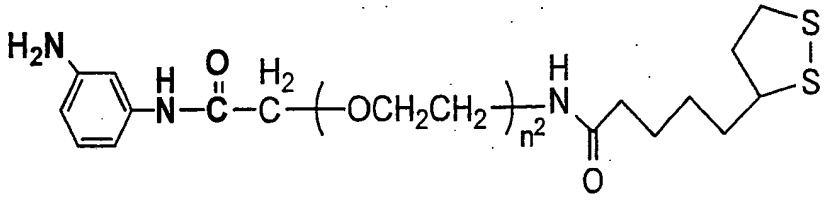
a linker compound having a structure represented by General Formula (9):



...(9)

where n^1 and q are independently integers of not less than 0 but not more than 6;

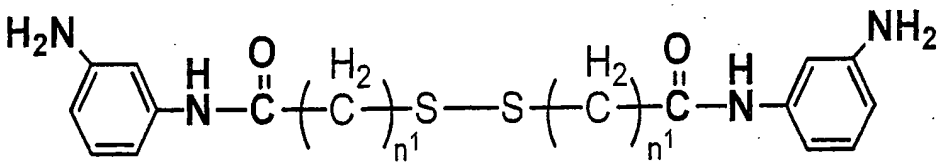
a linker compound having a structure represented by General Formula (10):



...(10)

where n^2 is an integer of not less than 1 but not more than 6; and

a linker compound having a structure represented by General Formula (11):



...(11)

where n^1 is an integer of not less than 1 but not more than 6.

8. A ligand carrier in which the ligand conjugate as set forth in any one of Claims 1 to 6 is immobilized on a supporter having a metal on a surface thereof.

9. The ligand carrier as set forth in Claim 8 wherein the ligand carrier is used for protein analysis.

10. A method for analyzing protein, comprising:

allowing the ligand conjugate as set forth in any one of Claims 1 to 6 to stand in contact with a supporter so as to prepare a ligand carrier in which the ligand conjugate is immobilized on the supporter;

analyzing intermolecular interaction after allowing the ligand carrier to stand in contact with a protein solution; and

performing mass spectroscopy after the analysis of the intermolecular interaction, so as to identify a protein bound on the ligand carrier.